

PATENT

performing a cryptographic operation upon the ATM PIN, thereby generating a non-ATM electronic commerce PIN for use in a second transaction which is a non-ATM transaction.

conf
B2
C1

2. (Amended) A method according to claim 1, wherein the step of performing a cryptographic operation comprises:

providing a conversion key; and

using the conversion key to perform said cryptographic operation upon the ATM PIN.

sub
C1
B3

6. (Amended) A method according to claim 1, wherein the step of performing a cryptographic operation comprises:

providing cryptographically-computed data; and

performing an operation upon the ATM PIN and the cryptographically-computed data.

sub
C1
B4

10. (Amended) A method according to claim 9, wherein the operation upon the ATM PIN and the cryptographically-computed data comprises either a subtraction operation or an addition operation.

11. (Amended) A method according to claim 10, wherein the step of providing cryptographically-computed data further comprises generating a cryptographically-computed number having a base corresponding to a base of a number representing the ATM PIN, wherein said cryptographically-computed number has a

number of digits corresponding to a number of digits of said number representing the ATM PIN.

12. (Amended) A method according to claim 6, wherein the step of providing cryptographically-computed data comprises generating a cryptographically-computed number having a base corresponding to a base of a number representing the ATM PIN, wherein said cryptographically-computed number has a number of digits corresponding to a number of digits of said number representing the ATM PIN.

13. (Amended) A method according to claim 6, wherein the operation upon the [first set of identification data] ATM PIN and the cryptographically-computed data comprises either a subtraction operation or an addition operation.

17. (Amended) A system for generating identification data, comprising:
a memory for storing an ATM PIN; and
a processor for performing a cryptographic operation upon the ATM PIN, such that said processor generates a second non-ATM PIN related to a non-ATM electronic transaction.

18. (Amended) The system of claim 17, wherein the memory includes means for storing a conversion key, and wherein the processor comprises means for using the conversion key to perform a cryptographic operation upon ATM PIN.

PATENT

Sub C1 22. (Amended) The system of claim 17, wherein the memory includes means for storing cryptographically-computed data, and wherein the processor comprises:

B6 means for generating the cryptographically-computed data; and

means for performing an operation upon the ATM PIN and the cryptographically-computed data.

Sub E 26. (Amended) The system of claim 25, wherein the means for performing an operation upon the ATM PIN and the cryptographically-computed data comprises either a subtraction means or an addition means.

B7 27. (Amended) The system of claim 25, wherein the means for performing an operation further comprises means for generating a cryptographically-computed number having a base corresponding to a base of a number representing the ATM PIN, wherein said cryptographically-computed number has a number of digits corresponding to a number of digits of said number representing the ATM PIN.

28. (Amended) The system of claim 22, wherein the means for performing an operation comprises means for generating a cryptographically-computed number having a base corresponding to a base of a number representing ATM PIN, wherein said cryptographically-computed number has a number of digits corresponding to a number of digits of said number representing the ATM PIN.

33. (Amended) A system for generating identification data, comprising:
a memory;
a processor in communication with the memory; and
a computer-readable medium in communication with the processor and storing
instructions which, when executed, cause the processor to perform the steps of:

storing an ATM PIN in the memory, said first set being related to a first
transaction type; and

performing a cryptographic operation upon the ATM PIN, thereby
generating a second PIN related to a non-ATM electronic transaction..

34. (Amended) The system of claim 33, wherein the step of performing a
cryptographic operation comprises:

providing a conversion key;

storing the conversion key in the memory; and

using the conversion key to perform said cryptographic operation upon the ATM

PIN.

38. (Amended) The system of claim 33, wherein the step of performing a
cryptographic operation comprises:

providing cryptographically-computed data;

storing the cryptographically-computed data in the memory; and

performing an operation upon the ATM PIN and the cryptographically-computed
data.

sub
Cf

41. (Amended) The system of claim 40, wherein at least a portion of the initial data is obtained from at least a portion of an account number.

42. (Amended) The system of claim 41, wherein the operation upon the ATM PIN and the cryptographically-computed data comprises either a subtraction operation or an addition operation.

B/D

43. (Amended) The system of claim 42, wherein the step of providing cryptographically-computed data further comprises generating a cryptographically-computed number having a base corresponding to a base of a number representing the ATM PIN, wherein said cryptographically-computed number has a number of digits corresponding to a number of digits of said number representing the ATM PIN.

44. (Amended) The system of claim 38, wherein the step of providing cryptographically-computed data comprises generating a cryptographically-computed number having a base corresponding to a base of a number representing the ATM PIN, wherein said cryptographically-computed number has a number of digits corresponding to a number of digits of said number representing ATM PIN.

PATENT

cont
B10
C1
45. (Amended) The system of claim 38, wherein the operation upon the ATM PIN and the cryptographically-computed data comprises either a subtraction operation or an addition operation.

sub
C1
49. (Twice Amended) A method for generating identification data for a non-ATM electronic financial transaction over a communications network, comprising the steps of:

B11
providing a first set of identification data related to a first transaction type;
performing a cryptographic operation upon the first set of identification data to generate a second set of identification data for use in conducting said non-ATM electronic financial transaction, wherein said first set of identification data is an ATM PIN, said first transaction type is an ATM-transaction, said second set of identification data is a non-ATM electronic commerce PIN; and
performing a second cryptographic operation upon said non-ATM electronic commerce PIN to generate said ATM PIN.

sub
C1
B12
50. (Amended) The method of claim 49, further comprising the step of:
performing a second cryptographic operation upon said electronic commerce PIN to generate said ATM-PIN.